

The experience and dedication you deserve

# Iowa Judicial Branch

Administering justice under the law equally to all persons.

# STATE OF IOWA JUDICIAL RETIREMENT FUND

Actuarial Valuation Report as of July 1, 2013





<b>SECTION</b>		<u>Page</u>
	Certification Letter	
I.	Executive Summary	1
II.	Valuation Results	
	Summary of Principal Valuation Results	8
	TABLE 1 - Changes in Plan Net Assets	9
	TABLE 2 - Development of Actuarial Value of Assets	10
	TABLE 3 - Present Value of Future Benefits	11
	TABLE 4 - Unfunded Actuarial Accrued Liability	12
	TABLE 5 - Actuarial Balance Sheet	13
	TABLE 6 - Actuarial Gain/(Loss)	14
	TABLE 7 - Summary of Amortization Bases	15
	TABLE 8 - Determination of Required Contribution Rate	16
III.	Plan Accounting Information	
	TABLE 9 - Schedule of Funding Progress	17
	TABLE 10 - Schedule of Employer Contributions	18
	TABLE 11 - Determination of Annual Required Contribution (ARC)	19
	TABLE 12 - Development of the Net Pension Obligation and Annual Pension Cost	20
APPENDICES	<u>S</u>	
A	Actuarial Assumptions and Methods	21
В	Summary of Plan Provisions	25
C	System Membership Information	29
ADDENDUM	Statutory Reporting	34



The experience and dedication you deserve

October 14, 2013

Mr. David Boyd State of Iowa Judicial Retirement Fund State Court Administrator's Office 1111 E. Court Ave. Des Moines, IA 50319

Dear Mr. Boyd:

At your request, we have performed an actuarial valuation of the Iowa Judicial Retirement Fund prepared as of July 1, 2013. The major findings are included in this report. The purpose of this report is to provide a summary of the funded status of the System as of July 1, 2013 and to provide the Annual Required Contribution (ARC) and the accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

This valuation reflects some assumption changes which were made following a review of all actuarial assumptions. The changes included a reduction in the salary increase assumption, an increase in the retirement rates reflecting earlier retirement ages, and revised assumptions regarding participation in the senior judge program.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. An asset smoothing method is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level dollar amount. The assumptions recommended by the actuary and adopted by the State Court Administrator are, in the aggregate, reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25 and 27.

We have prepared the Schedule of Funding Progress and Trend Information. All historical information that references a valuation date prior to July 1, 2010 was prepared by the previous actuarial firm.

Mr. David Boyd October 14, 2013 Page 2



This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of potential results is not presented herein.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Respectfully submitted,

Principal and Consulting Actuary

Patrice Beckham

But a. B. t

Patrice A. Beckham, FSA, EA, FCA, MAAA Brent A. Banister, PhD, FSA, EA, FCA, MAAA Chief Pension Actuary

PB:BB/kc



#### SECTION I – EXECUTIVE SUMMARY

This report presents the results of the July 1, 2013 actuarial valuation for the State of Iowa Judicial Retirement Fund (System). The primary purposes of performing an actuarial valuation are to:

- measure and disclose asset and liability measures as of the valuation date;
- determine the employer contribution rate required to fund the System on an actuarial basis;
- determine the experience of the System since the last valuation date; and
- analyze and report on trends in System contributions, assets, and liabilities over the past several years.

Section I of the report is a summary of the principal results of the valuation.

Section II of the report provides detail of the valuation results including the assets, liabilities, and contribution rates.

Section III of the report provides the accounting information for the System and the State including calculation of the Annual Required Contribution, the Net Pension Obligation, and the Annual Pension Cost. Most of this information is necessary for compliance with Statements Number 25 and 27 of the Governmental Accounting Standards Board.

This valuation reflects some assumption changes which were made following a review of all actuarial assumptions. Changes included a reduction in the salary increase assumption from 4.50% to 4.25%, an increase in the retirement rates reflecting earlier retirement ages, and revised assumptions regarding participation in the senior judge program.

The Appendices provide a summary of the data, methods and assumptions used in the preparation of this report. The assumptions and methods used in our calculation are acceptable for purposes of GASB as well as for purposes of determining an appropriate level of contributions to be made to the fund.

The valuation results provide a "snapshot" view of the System's financial condition on the valuation date. As of July 1, 2013, the System has an unfunded actuarial accrued liability (UAAL) of \$51 million. The UAAL decreased by \$2 million from last year's amount due to various factors. A more complete analysis of the change in the unfunded actuarial accrued liability from July 1, 2012 to July 1, 2013 is shown on page 14.





The highlights of the valuation are:

	<b>Actuarial Valuation Date</b>			
Funded Status	July 1, 2013	July 1, 2012		
Using Actuarial Value of Assets				
Actuarial Accrued Liability	\$178,725,295	\$170,232,283		
Actuarial Assets	127,352,986	117,272,451		
Unfunded Actuarial Accrued Liability	\$ 51,372,309	\$ 52,959,832		
Funded Ratio	71.3%	68.9%		
Using Market Value of Assets				
Actuarial Accrued Liability	\$178,725,295	\$170,232,283		
Market Assets	128,928,834	111,224,878		
Unfunded Actuarial Accrued Liability	\$ 49,796,461	\$ 59,007,405		
Funded Ratio	72.1%	65.3%		

The total actuarial required contribution rate in the 2013 valuation is lower than last year. The State's portion of the actuarial contribution rate decreased from 31.39% in the 2012 valuation to 29.70% in the 2013 valuation. The statutory contribution rate is 30.60% of pay, resulting in a small contribution surplus of 0.90%, as shown below:

	Actuarial Va	luation Date
Required Contribution Rate	July 1, 2013	July 1, 2012
1. Normal Cost	22.18%	22.03%
2. Amortization Payment	16.87%	18.71%
3. Total Contribution Rate (1) + (2)	39.05%	40.74%
4. Expected Member Contribution Rate	9.35%	9.35%
5. State Contribution Rate (3) - (4)	29.70%	31.39%
6. Statutory Contribution Rate	(30.60%)	(30.60%)
7. Shortfall/(Surplus) (5) - (6)	(0.90%)	0.79%



#### **EXPERIENCE**

### July 1, 2012 – June 30, 2013

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is July 1, 2013. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, which are generally in excess of assets. The actuarial process leads to a method of determining the contributions needed by members and employers in the future to balance the System assets and liabilities.

Changes in the System's assets and liabilities impacted the change in the actuarial contribution rates between the July 1, 2012 and July 1, 2013 actuarial valuations. On the following pages each component is discussed.

### **ASSETS**

As of July 1, 2013, the System had total funds when measured on a market value basis, of \$128.9 million. This was an increase of about \$17.7 million from the July 1, 2012 figure of \$111.2 million.

The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method is used to smooth the effect of market fluctuations. See page 10 for the detailed development of the actuarial value of assets as of July 1, 2013.

The actuarial value of assets as of July 1, 2013, was \$127.4 million. The annualized dollar-weighted rate of return for FY 2012, measured on the actuarial value of assets was approximately 7.9%, and measured on the market value of assets was approximately 15.2%, net of investment expenses. The components of the change in the market and actuarial value of assets for the System (in millions) are set forth below.

	\$(millions)		
	Market Value	Actuarial Value	
Net Assets, July 1, 2012	\$111	\$117	
Employer and Member Contributions	11	11	
Benefit Payments and Expenses	(10)	(10)	
Investment Income	17	9	
Net Assets, July 1, 2013	\$129	\$127	
Estimated Rate of Return	15.2%	7.9%	



#### SECTION I – EXECUTIVE SUMMARY

Due to the strong investment return on the market value of assets for FY 2013 (about 15%), the rate of return on the actuarial value of assets was higher than the assumed rate of 7.5%, resulting in a small actuarial gain on assets. Because of the asset smoothing method, there is now about \$2 million of net deferred investment gain that has not been recognized (last year there was \$6 million of deferred loss). Absent unfavorable investment experience in future years to offset the recognition of the deferred gain, it will flow through the asset smoothing method and future contribution rates are expected to decrease.

#### **LIABILITIES**

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial accrued liability (UAAL). The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest on the previous balance of the unfunded actuarial accrued liability.

The unfunded actuarial accrued liability as of July 1, 2013 is shown below:

Actuarial Accrued Liability	\$ 178,725,295
Actuarial Value of Assets	127,352,986
Unfunded Actuarial Accrued Liability	\$ 51,372,309

Factors influencing the UAAL from year to year include actual experience versus that expected based on the actuarial assumptions (both asset and liability), changes in actuarial assumptions, procedures or methods and changes in benefit provisions. The actual experience measured in this valuation is that which occurred during the prior plan year (fiscal year ending 2013). This valuation reflects some assumption changes which were made following a review of all assumptions. Changes included a reduction in the assumed salary increases, some increase in the retirement rates, and revised assumptions regarding participation in the senior judge program. The change in actuarial assumptions increased the UAAL by \$0.4 million.

The UAAL decreased from \$53 million on July 1, 2012 to \$51 million on July 1, 2013. The Fund experienced a total actuarial gain of \$0.5 million for the year ending June 30, 2013. Actuarial experience (gain or loss) is measured by comparing the expected UAAL (developed using the actuarial assumptions) and the actual UAAL. The return on the actuarial value of assets was approximately 7.9%, which is slightly higher than the actuarial assumption of 7.5%. This resulted in an actuarial gain of about \$0.5 million which decreased the UAAL. There was no meaningful gain or loss on the liabilities.

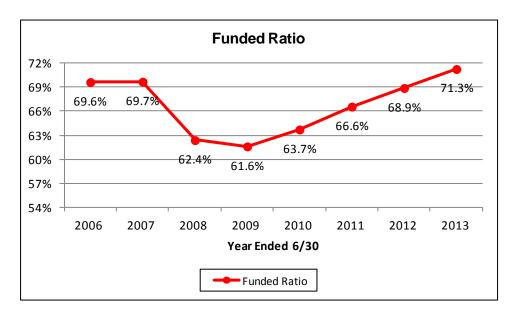


Between July 1, 2012 and July 1, 2013 the change in the unfunded actuarial accrued liability for the System was as follows (in millions):

	<u>\$ millions</u>
Unfunded Actuarial Accrued Liability, July 1, 2012	53.0
<ul> <li>effect of contributions less than the actuarial rate</li> </ul>	(0.2)
expected decrease due to amortization method	(1.0)
investment experience	(0.5)
• liability experience <sup>1</sup>	0.0
change in actuarial assumptions	0.4
<ul> <li>change in benefit provisions</li> </ul>	0.0
other actuarial experience	(0.3)
Unfunded Actuarial Accrued Liability, July 1, 2013	51.4

Liability loss was negligible as a percent of AAL

An evaluation of the unfunded actuarial accrued liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both large numbers) is reflected. Another way to evaluate the progress made in the System's funding is to track the funded status, which is the ratio of the actuarial value of assets to the actuarial accrued liability. The funded status is shown in the graph below:



### **CONTRIBUTION RATES**

The funding objective of the System is to pay the normal cost rate plus the amortization of each piece of the unfunded actuarial accrued liability over a 25-year period commencing with the valuation date on which the base was created.



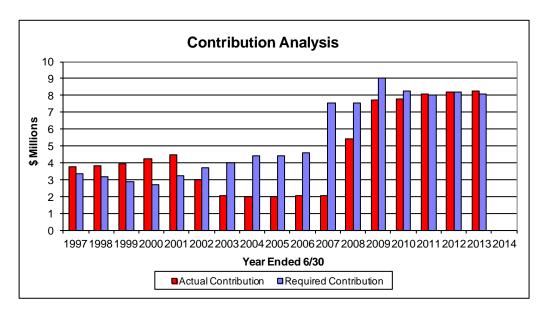
Under the Entry Age Normal cost method, the actuarial contribution rate consists of:

- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date,
- an "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

	Plan Year	Beginning
	<b>July 1, 2013</b>	<b>July 1, 2012</b>
Prior year total contribution rate	40.74%	40.50%
change due amortization method	(0.81%)	(0.80%)
· change due to asset (gains)/losses	(0.16%)	0.68%
change due to other actuarial experience	(0.93%)	0.29%
· change due to change in actuarial assumptions	0.14%	0.00%
<ul> <li>change due to actual contribution rate lower</li> </ul>	0.07%	0.07%
than actuarial rate		
Current year total actuarial contribution rate	39.05%	40.74%
Member's contribution rate	(9.35%)	(9.35%)
State's actuarial contribution rate	29.70%	31.39%

Contributions to the System, by the members and the state, are set in statute. The member contribution rate is 9.35%, and the employer contribution rate is 30.60% of pay for a total statutory contribution rate of 39.95%.

The following graph summarizes the actual and the actuarial employer contributions in recent years.





### **COMMENTS**

Over the last four years, the average asset return has been 12%, which is higher than the assumed rate of return of 7.5%. The resulting asset gains, coupled with liability gains, largely due to lower than expected salary increases in several years, have improved the System's funded status. As a result, the actuarial contribution rate is now lower than the statutory contribution rate, although the difference is small. In order for the financing of the plan on a fixed contribution rate basis to be successful, contributions above the actuarial rate must be made to offset the periods where the fixed contribution rate will be below the actuarial contribution rate. If all actuarial assumptions are met in future years, the funded ratio of the System is expected to increase over time. The actual investment experience in future years will heavily impact the funding of the System and the sufficiency of the current statutory contribution rates.



### STATE OF IOWA JUDICIAL RETIREMENT FUND

### SUMMARY OF PRINCIPAL VALUATION RESULTS

		Actuarial Valuation as of July 1, 2013		Actuarial Valuation as of <u>July 1, 2012</u>	% <u>Change</u>
1. SUMMARY OF DATA					
Active Judges		202		192	5.20%
Senior Judges and Retired Senior Judges		65		62	4.80%
Retired Judges		79		76	3.90%
Beneficiaries of Deceased Judges		47		48	(2.1%)
Inactive Vested Judges		7		8	(12.5%)
Total Members	-	400	_	386	3.60%
2. ACTIVE PARTICIPANT STATISTICS					
Total Compensation	\$	28,278,385	\$	25,760,100	9.80%
Average Compensation		139,992		134,167	4.30%
Average Age		56.47		56.64	(0.3%)
Average Service		11.2		11.8	(5.5%)
3. ASSET AND LIABILITY INFORMATION					
Actuarial Accrued Liability	\$	178,725,295	\$	170,232,283	5.00%
Actuarial Value of Assets		127,352,986		117,272,451	8.60%
Unfunded Actuarial Accrued Liability (UAAL)		51,372,309		52,959,832	(3.0%)
Funded Ratio (Actuarial Value)		71.3%		68.9%	3.40%
Market Value of Assets		128,928,834		111,224,878	15.90%
Funded Ratio (Market Value)		72.1%		65.3%	10.40%
4. CONTRIBUTION INFORMATION					
Normal Cost		22.18%		22.03%	0.70%
UAAL Payment		<u>16.87%</u>		<u>18.71%</u>	(9.8%)
Total Actuarial Contribution		39.05%		40.74%	(4.2%)
Less Member Contribution		(9.35%)		(9.35%)	0.00%
State Contribution		29.70%		31.39%	(5.4%)
Less Statutory Contribution		(30.60%)		(30.60%)	0.00%
Shortfall		(0.90%)		0.79%	(214.6%)



TABLE 1
STATEMENT OF CHANGES IN PLAN NET ASSETS

		Year End June 30, 2013		Year End <b>June 30, 2012</b>
Additions				
1. Contributions				
a. State	\$	8,232,461	\$	8,215,668
b. Members	_	2,515,479		2,510,348
c. Total Contributions (a + b)		10,747,940	_	10,726,016
2. Investment Income				
a. Interest	\$	1,411,128	\$	1,473,780
b. Dividends		1,064,360		1,056,103
c. Gain on Sale of Investments		15,163,851		(3,745,188)
d. Net Appreciation		(281,528)		(235,111)
e. Investment Expenses		(377,289)		(395,052)
f. Total Investment Income	•		-	
(a+b+c+d+e)		16,980,522		(1,845,468)
3. Total Additions (1c + 2f)	\$	27,728,462	\$	8,880,548
Deductions				
4. Deductions				
a. Benefit Payments	\$	10,015,106	\$	9,218,346
b. Administrative Expense		9,400	_	9,200
c. Total Deductions (a + b)		10,024,506		9,227,546
5. Net Increase (3 – 4c)	\$	17,703,956	\$	(346,998)
6. Net Assets Held in Trust for Pension Benefits				
a. Beginning of Year	\$	111,224,878	\$	111,571,876
b. End of Year	\$	128,928,834	\$	111,224,878



# DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

### As of July 1, 2013

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. This methodology smoothes the volatility of market experience by only recognizing 25% of the difference between the expected value (based on the actuarial assumption) and the actual market value.

1. Actuarial Value of Assets as of July 1, 2012	\$	117,272,451
2. Actual Contribution/Disbursements		
<ul><li>a. Contributions</li><li>b. Benefit Payments and Refunds</li><li>c. Net</li></ul>	\$ \$	10,747,940 (10,015,106) 732,834
3. Expected Value of Assets as of July 1, 2013 [(1) x 1.075] + [(2c) x (1.075) <sup>1/2</sup> ]	\$	126,827,703
4. Market Value of Assets as of July 1, 2013	\$	128,928,834
5. Difference Between Market and Expected Values (4) - (3)	\$	2,101,130
6. Actuarial Value of Assets as of July 1, 2013 (3) + [(5) x 25%]	\$	127,352,986
7. Actuarial Value of Assets divided by Market Value of Assets (6) / (4)		98.8%
8. Market Value of Assets less Actuarial Value of Assets (4) - (6)	\$	1,575,848



# PRESENT VALUE OF FUTURE BENEFITS AS OF JULY 1, 2013

1. Active employees

	iou (o cimpro) cos		
	a. Retirement Benefit	\$	129,633,357
	b. Withdrawal Benefit		30,127
	c. Pre-Retirement Death Benefit		1,652,820
	d. Total	\$	131,316,304
	nactive Vested Members letirees and Beneficiaries	\$	2,957,094 96,676,981
			, ,
4. T	otal Present Value of Future Benefits	<u> </u>	230,950,379
	(1d) + (2) + (3)	<del></del>	



# UNFUNDED ACTUARIAL ACCRUED LIABLITY as of July 1, 2013

### 1. Present Value of Future Benefits

a. Active Employees	\$ 131,316,304
b. Inactive Employees	99,634,075
c. Total	\$ 230,950,379
2. Present Value of Future Normal Costs	\$ 52,225,084
3. Total Actuarial Accrued Liability (1c) - (2)	\$ 178,725,295
4. Actuarial Value of Assets	\$ 127,352,986
5. Unfunded Actuarial Accrued Liability	\$ 51,372,309



# ACTUARIAL BALANCE SHEET July 1, 2013

### **ASSETS**

Actuarial value of assets	\$ 127,352,986
Present value of future normal costs	52,225,084
Payments on Unfunded Actuarial Accrued Liability	\$ 51,372,309
Total Net Assets	\$ 230,950,379

### **LIABILITIES**

### Present Value of Projected Benefits:

Active Members		
Retirement Benefits	\$	129,633,357
Withdrawal Benefits		30,127
Pre-Retirement Death Benefits		1,652,820
Members with Deferred Benefits		2,957,094
Members Receiving Benefits	\$	96,676,981
Total Liabilities		230,950,379



# ACTUARIAL GAIN/(LOSS) Plan Year Ending June 30, 2013

The actuarial gain/(loss) is comprised of both the liability and the actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of July 1, 2013.

1.	Expected actuarial accrued liability	
	a. Actuarial accrued liability at July 1, 2012	\$ 170,232,283
	b. Normal cost for FYE 2013	5,474,127
	c. Benefit payments for fiscal year ending June 30, 2013	(10,015,106)
	d. Interest at 7.5% on (a), (b), and (c)	12,600,213
	e. Change in actuarial assumptions	421,299
	f. Expected actuarial accrued liability at July 1, 2013	\$ 178,712,816
	(a) + (b) + (c) + (d) + (e)	
2.	Actuarial accrued liability at July 1, 2013	\$ 178,725,295
3.	Actuarial accrued liability gain/(loss)	\$ (12,479)
	(1f) - (2)	
4.	Expected actuarial value of assets	
	a. Actuarial value of assets at July 1, 2012	\$ 117,272,451
	b. Contributions for fiscal year ending June 30, 2013	10,747,940
	c. Benefit payments and administrative expenses for	(10,015,106)
	fiscal year ending June 30, 2013	
	d. Interest at 7.5% on (a), (b), and (c)	8,822,418
	e. Expected actuarial value of assets at July 1, 2013	\$ 126,827,703
	(a) + (b) + (c) + (d)	
5.	Actuarial value of assets at July 1, 2013	\$ 127,352,986
6.	Actuarial value of assets gain/(loss)	\$ 525,283
	(5) - (4e)	
7.	Net actuarial gain/(loss)	\$ 512,803
	(3) + (6)	



TABLE 7
SUMMARY OF AMORTIZATION BASES
At July 1, 2013

Date	Original	Amortization	Outstanding
Established	Amount	Payment*	Balance
July 1, 2009	\$57,984,095	\$4,838,876	\$54,168,760
July 1, 2010	(517,789)	(43,210)	(493,181)
July 1, 2011	(704,233)	(58,770)	(682,737)
July 1, 2012	(1,072,732)	(89,521)	(1,056,947)
July 1, 2013	(563,586)	<u>(47,032)</u>	<u>(563,586)</u>
		\$4,600,343	\$51,372,309

<sup>\*</sup> Each base is amortized as a level dollar amount over 25 years



# DETERMINATION OF REQUIRED CONTRIBUTION RATE

1.	Normal Cost	
	a. Retirement Benefits	21.78%
	b. Pre-Retirement Death Benefits	0.36%
	c. Withdrawal Benefits	0.04%
	d. Total	22.18%
2.	<b>UAAL Amortization Payment (See Table 7)</b>	
	a. Amount (mid-year)	\$ 4,769,737
	b. Projected Payroll for Fiscal Year	\$ 28,278,385
	c. UAAL payment (% of pay)	16.87%
3.	<b>Total Contribution Rate</b>	39.05%
	(1.d.) + (2.c.)	
4.	<b>Member Contribution Rate</b>	9.35%
5.	State Contribution Rate (3) - (4)	29.70%
6.	<b>State Statutory Contribution Rate</b>	30.60%
7.	Contribution Rate Shortfall/(Surplus) (5) - (6)	(0.90%)



TABLE 9
SCHEDULE OF FUNDING PROGRESS (In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets <sup>1</sup> (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL/ Covered Payroll ((b-a)/c)
Date	(4)	(b)	(b-a)	(4/6)	(C)	((b-a)/c)
July 1, 2008	\$88,198	\$141,364	\$53,166	62%	\$26,663	199%
July 1, 2009	93,045	151,029	57,984	62%	26,811	216%
July 1, 2010	99,416	156,029	56,613	64%	25,480	222%
July 1, 2011	109,512	164,511	55,000	67%	26,403	208%
July 1, 2012	117,272	170,232	52,960	69%	25,760	206%
July 1, 2013	127,353	178,725	51,372	71%	28,278	182%

<sup>&</sup>lt;sup>1</sup> The actuarial value of assets was changed from pure market value to the expected value plus 25% of the difference between actual and expected value effective with the July 1, 2009 valuation.



### SCHEDULE OF EMPLOYER CONTRIBUTIONS

	Annual Required	Percentage
Year Ended	<b>Contribution</b>	Contributed
June 30, 2008	\$7,552,722	72%
June 30, 2009	9,024,252	86%
June 30, 2010	8,257,696	95%
June 30, 2011	7,994,811	101%
June 30, 2012	8,225,558	100%
June 30, 2013	8,085,627	102%

### Notes to the Required Schedules:

- 1. The cost method was Projected Unit Credit for years ending June 30, 2009 and before. After that, the cost method has been Entry Age Normal.
- 2. The actuarial value of assets was equal to the fair market value for years ending June 30, 2008 and before. The expected value plus 25% of the difference between actual market value and expected value method has been used since year ended June 30, 2009.

3. Economic assumptions are as follows: Inflation rate of 3.25%

Investment return rate of 7.50% Salary increases of 4.50% per year.

Post-retirement benefit increases vary from 0.00% to 4.50%

Note: Some of the actuarial assumptions, including the assumptions for salary increases and post-retirement benefit increases, were changed for the July 1, 2013 valuation (see Appendix A). Because the information reported in the "Schedule of Employer Contributions" is for plan years ending prior to July 1, 2013, the assumption changes are not reflected here.

4. Each year's unexpected change in the UAL is amortized over a closed amortization period of 25 years, determined as a level dollar amount.



## **DETERMINATION OF ANNUAL REQUIRED CONTRIBUTION (ARC)**

# In Accordance with Statement No. 25 of the Governmental Accounting Standards Board

1.	Normal Cost	
	a. Retirement Benefits	21.78%
	b. Pre-Retirement Death Benefits	0.36%
	c. Withdrawal Benefits	0.04%
	d. Total	22.18%
2.	UAAL Amortization Payment (See Table 7)	
	a. Amount (mid-year)	\$ 4,769,737
	b. UAAL payment (% of pay)	16.87%
3.	<b>Total Contribution Rate</b>	39.05%
	(1.d.) + (2.b.)	
4.	<b>Member Contributions</b>	9.35%
5.	State Contribution	29.70%
	(3) - (4)	
6.	Projected Payroll for Fiscal Year	\$ 28,278,385
7.	Annual Required Contribution (ARC) (5) * (6)	\$ 8,398,680



# DEVELOPMENT OF THE NET PENSION OBLIGATION AND ANNUAL PENSION COST

# In Accordance with Statement No. 27 of the Governmental Accounting Standards Board

_ · · · · · · · · · · · · · · · · ·	
Net Pension Obligation as of July 1, 2012	\$16,620,857
Annual Pension Cost for the Year Ended June 30, 2013	7,894,077

Employer Contributions for the Year Ended June 30, 2013 8,232,461

Net Pension Obligation as of June 30, 2013

**Determination of Net Pension Obligation** 

\$16,282,473

(1) + (2) - (3)

### **Determination of Annual Pension Cost for FY2014**

1. Ann	al Required Contribution (ARC)	\$ 8,398,680
--------	--------------------------------	--------------

2. a. Net Pension Obligation \$16,282,473 b. Interest Rate 7.50%

c. Interest on Net Pension Obligation \$ 1,221,185

3. a. Net Pension Obligation \$16,282,473

b. Amortization Factor (25 years) 11.98297

c. Adjustment to ARC \$ 1,408,835

 $[(a)/(b)] \times 1.075^{1/2}$ 

4. Annual Pension Cost \$ 8,211,030

(1) + (2c) - (3c)



# APPENDIX A ACTUARIAL ASSUMPTIONS AND METHODS



### **Actuarial Assumptions**

*Interest* 7.5% per annum.

Mortality RP-2000 Healthy Annuitant and Employee Mortality Tables with

generational improvements and a one year age set back.

**Turnover** 1.0% per year for all participants under age 45. The termination rate

experienced by the system has been very small, and this trend is

assumed to continue.

Rate of Disablement;

Disabled Life Mortality No incidence of disability was assumed.

Salaries will increase 4.25% per annum (effective with the 7/1/13

valuation).

*Incidence of Retirement* The following table, first effective 7/1/13, indicates the assumed rate of

retirement at each age.

<u>Age</u>	<u>Rate</u>
50 - 59	3%
60 - 64	12
65 - 71	20
72	100

Spouse's Benefit 85% of employees were assumed married, with the spouse four years

younger.

Internal Revenue Service

Limits on Recognized Pay

The limit is assumed to increase based on cost of living increases of

3.0% per year.

Retiring Judges Electing

Senior Judge Status 80%, with 60% relinquishing after 6 years if before 78 (effective with

the 7/1/13 valuation).

Adjustment to Benefit

for Senior Judges Became Senior Judge Adjustment

Before 1/1/93 4.25% for life 1/1/93 to 7/1/94 4.25% to age 78 7/1/94 and later 3.1875% to age 78

(Effective with the 7/1/13 valuation)



#### **Asset Valuation Method**

The market value of assets, representing a fair value of System assets, may not necessarily be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

**Step 1:** Determine the expected value of plan assets at the current valuation date using the actuarial value of assets from the prior valuation, the actuarial assumption for investment

return and the actual receipts and disbursements of the fund for the previous 12 months.

**Step 2:** Subtract the expected value determined in Step 1 from the total market value of the Fund

at the current valuation date.

**Step 3:** Multiply the difference between market and expected values determined in Step 2 by

25%.

**Step 4:** Add the expected value of Step 1 and the product of Step 3 to determine the actuarial

value of assets.

### **Actuarial Cost Method**

Liabilities and contributions shown in this report are computed using the Individual Entry Age Normal method of funding.

Sometimes called the "funding method", this is a particular technique used by actuaries for establishing the amount of the annual actuarial cost of pension benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the System is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Under the Entry Age Actuarial Cost Method, the **Normal Cost** is computed as the level percentage of pay which, if paid from the earliest time each member would have been eligible to join the System if it then existed (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the System.

The **Actuarial Accrued Liability** under this method at any point in time is the theoretical amount of the fund that would have accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The **Unfunded Actuarial Accrued Liability** is the excess of the actuarial accrued liability over the actuarial value of System assets on the valuation date.

Under this method experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.



### **Amortization Method**

### **Level Dollar Amortization Method**

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

### **Amortization Period**

The amortization period on the existing UAL at July 1, 2009 was set to a closed 25-year period. A new amortization base is established each year, reflecting the difference in actual and expected experience. Each base established after 2009, is amortized over a new closed 25-year period.



# APPENDIX B SUMMARY OF PLAN PROVISIONS



### STATE OF IOWA JUDICIAL RETIREMENT FUND

#### **Summary of Plan Provisions**

An actuarial valuation involves the projection of the amount and timing of future benefit payments. Summarized below are the principal provisions of the plan which were used to estimate future benefit payments.

Credited Service All years of service as a judge are credited.

Average Monthly Salary Average monthly basic salary for highest three years as a judge.

Each year's pay is limited to the compensation limit in Section

401(a)(17) of the Internal Revenue Code.

Accrued Benefit The benefit payable at Normal Retirement Date which the judge

has earned based on average salary and credited service to date.

Normal Form The normal form of payment is an annuity payable for the life of

the judge with one-half such amount payable to an eligible surviving spouse with a guarantee that payments totaling at least

the amount of the judge's contributions will be made.

Eligible Spouse A spouse is eligible if married to the judge for at least the one

year preceding death.

**Retirement Eligibility** Age 65 with a minimum of four years service or 20 years of

service and age 50.

Mandatory Retirement Date Age 72 for active judges. Age 78 for judges participating in the

Senior Judge Program, unless reappointed at the discretion of the

Supreme Court.

Monthly Retirement Benefit Effective July 1, 2006, 3.25% of Average Monthly Salary times

years of credited service subject to a maximum of 65% of final earnings. Prior to 2006 the formula was 3% of average monthly salary times years of service subject to a maximum of 50% until July 1, 1998, 52% from July 1, 1998 until June 30, 2000, 56% from July 1, 2000 to June 30, 2001, 60% effective July 1, 2001. Commencing July 1, 1992, a judge or a survivor of a judge who retired before June 1, 1977, shall receive a minimum monthly

annuity payment of \$500.

Disability Retirement Upon total and permanent disability with a minimum of four

years of credited service, the Judge receives the accrued benefit.

Vesting 100% vesting for voluntary terminations after 4 years of credited

service (6 years prior to July 1, 2006). 100% vesting for Judges'

contributions at all times.



#### Pre-Retirement Death Benefit

Four years of service required. The death benefit payable to an eligible spouse is one-half the accrued benefit at the date of death. The death benefit shall commence on the later of the date of death or the date the spouse reaches age 60.

### Judge's Required Contribution Rate

July 1, 2008, 7.7% of pay. Effective July 1, 2009, 8.7% of pay. Effective July 1, 2010 and for each subsequent fiscal year until the System attains fully funded status, 9.35% of pay. Thereafter, the member contribution rate is 40% of the actuarially required contribution rate.

### State's Required Contribution Rate

For the fiscal year beginning July 1, 2008, and for each subsequent fiscal year until the system attains fully funded status, thirty and six-tenths percent of pay. Commencing with the first fiscal year in which the system attains fully funded status, and for each subsequent fiscal year, the percentage rate equal to sixty percent of the actuarially required contribution rate.

## Annuity for Senior Judges and Retired Senior Judges

(a) Judges retiring and becoming Senior Judges before January 1, 1993:

The annuity for all senior judges or retired senior judges will be equal to 3% of the current base salary of the office in which the judge last served before retirement as a judge or senior judge, multiplied by the judge's years of service prior to retirement as a judge, subject to a maximum of 50% of such current base salary.

(b) Judges retiring and becoming Senior judges on or after January 1, 1993 and before July 1, 1994:

The annuity is the same as (a) above, except that the annuity will increase only until the year in which the judge attains age 78. At that point, it will remain the same until the judges' death.

(c) Judges retiring and becoming Senior Judges on or after July 1, 1994:

The annuity is the same as (b) above, except that the percentage increase of the annuity each year is only 75% of the amount that it would have been under (b).

(d) Judges retiring and becoming Senior Judges on or after July 1, 1998:



### APPENDIX B – SUMMARY OF PLAN PROVISIONS

The annuity is the same as (c) above, except that the maximum benefit is 52% of the current base salary.

(e) Judges retiring and becoming Senior Judges on or after July 1, 2000:

The annuity is the same as (d) above, except that the maximum benefit is 56% of the current base salary.

(f) Judges retiring and becoming Senior Judges on or after July 1, 2001:

The annuity is the same as (e) above, except that the maximum benefit is 60% of the current base salary.

(g) Judges retiring and becoming Senior Judges on or after July 1, 2006: The percentage multiplier is 3.25% per year of service and the maximum benefit is 65% of the current base salary.



# APPENDIX C SYSTEM MEMBERSHIP INFORMATION



### RECONCILIATION OF MEMBER STATUS

From July 1, 2012 to July 1, 2013

Members as of July 1, 2012	Active <u>Members</u> 192	Inactive <u>Vesteds</u> 8	Senior <u>Judge*</u> 62	Retired <u>Members</u> 70	Disabled <u>Members</u> 6	Beneficiaries 48	<u>Total</u> 386
New Entrants	19	0	0	0	0	2	21
Non-vested Terminations	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0
Senior Judge Status	(7)	0	4	3	0	0	0
Retirement	(2)	(1)	0	3	0	0	0
Deceased	0	0	(1)	(3)	0	(3)	(7)
Data Adjustments	0	0	0	0	0	0	0
Members as of July 1, 2013	202	7	65	73	6	47	400

<sup>\*</sup>Senior Judges include both those serving as Senior Judges as well as those still entitled to future benefit increases.



### **ACTIVE MEMBERS AS OF JULY 1, 2013**

	Annual Salary									
Age	Male	Female	Total		Male		Female		Total	
under 30	0	0	0		\$	0	\$	0	\$	0
30-34	0	0	0			0		0		0
35-39	3	1	4		399,71	3	14	3,897	:	543,610
40-44	4	6	10		543,61	0	78	3,437	1,	327,047
45-49	17	11	28		2,318,33	7	1,50	8,251	3,	826,588
50-54	22	8	30		3,091,11	6	1,09	7,879	4,	188,995
55-59	37	12	49		5,180,28	5	1,65	7,477	6,	837,762
60-64	43	14	57		6,192,89	2	1,94	5,272	8,	138,164
65-69	19	2	21		2,702,06	4	29	8,453	3,	000,517
70 & up	3	0	3		415,70	2		0	4	415,702
Totals	148	54	202		\$20,843,71	9	\$7,43	4,666	\$28,	278,385

## **ACTIVE AGE / SERVICE DISTRIBUTION AS OF JULY 1, 2013**

Years of Service									
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Age	Count								
								,	
under 30	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	3	1	0	0	0	0	0	0	4
40-44	9	1	0	0	0	0	0	0	10
45-49	15	13	0	0	0	0	0	0	28
50-54	12	4	5	8	1	0	0	0	30
55-59	12	11	8	12	3	3	0	0	49
60-64	5	8	16	13	4	7	3	1	57
65-69	1	1	5	7	3	3	1	0	21
70 & up	0	0	2	0	1	0	0	0	3
									-05
Totals	57	39	36	40	12	13	4	1	202



# INACTIVE VESTED MEMBERS as of July 1, 2013

	Number o	f Members		Annual Benefit						
Age	Male	Female	Total		Male		Female		Total	
30-34	0	0	0	\$	0	\$	0	\$	0	
35-39	0	0	0		0		0		0	
40-44	0	0	0		0		0		0	
45-49	0	0	0		0		0		0	
50-54	0	0	0		0		0		0	
55-59	0	2	2		0	70	),461	70	0,461	
60-64	3	2	5	13	32,791	133	3,179	265	5,969	
65-69	0	0	0		0		0		0	
70 & up	0	0	0		0		0		0	
Totals	3	4	7	\$13	32,791	\$203	3,640	\$336	5,431	



# RETIREES AND BENEFICIARIES as of July 1, 2013

Number of Members						Annual Benefit									
Age	Retired	Senior	Beneficiaries	Total		Retired		Senior		Beneficiaries		Total			
under 55	0	0	0	0		\$	0	\$	0	\$	0	\$	0		
55 to 59	1	0	3	4		89,505		0		112,937		202,442			
60 to 64	8	7	2	17		558,304		566,996		93,263		1,218,563			
65 to 69	10	22	1	33		582,368		1,770,027		11,997		2,364,392			
70 to 74	15	12	6	33		824,753		939,605		165,641		1,929,999			
75 to 79	13	8	5	26		571,410		591,622		234,143		1,39	7,176		
80 to 84	18	8	5	31		818,381		495,150		495,150 19		1,50	08,551		
85 to 89	13	6	12	31		469,912		375,882		367,368		1,21	3,162		
90 to 94	1	2	5	8		46,474		110,848		110,848 90,82		24	18,146		
95 to 99	0	0	7	7		0		0			0	9	4,085	9	94,085
100 & over	0	0	1	1			0		0	1	0,598	1	0,598		
Totals	79	65	47	191	. <u>-</u>	\$3,96	1,108	\$4,85	0,128	\$1,37	5,878	\$10,18	37,114		



### IOWA JUDICIAL RETIREMENT FUND CERTIFICATION

We have prepared an actuarial valuation of the Iowa Judicial Retirement Fund as of July 1, 2013, for the fiscal year ending June 30, 2014. The results of the valuation are set forth in this addendum, which reflects the benefit provisions in effect on July 1, 2013.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete, or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

The results in this Addendum have been prepared for the sole purpose of providing the information required under Chapter 97 D.5 of the Iowa code. Calculations are based on the following prescribed methods:

Actuarial cost method: Entry Age Normal Amortization method: Level percent of payroll Amortization period: 30 years, open period

1

All other assumptions, methodologies, and System provisions used are consistent with those used in the regular July 1, 2013 valuation for the Iowa Judicial Retirement Fund.

The results shown in this Addendum are not consistent with those in the regular July 1, 2013 valuation. The July 1, 2013 valuation results were determined in accordance with generally accepted actuarial principles and practices that are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying opinion and supporting recommendations of the American Academy of Actuaries. The results shown in this Addendum are not necessarily based on the methodologies adopted by the System.

We are available to answer any questions on the material contained in this report, or to provide explanations or further details as may be appropriate.

The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Patrice Beckham	October 14, 2013
Patrice A. Beckham, F.S.A.	Date
Bant a. Rust	October 14, 2013
Brent A. Banister, F.S.A.	Date



### IOWA JUDICIAL RETIREMENT FUND SUMMARY OF VALUATION RESULTS UNDER PRESCRIBED METHODOLOGY

This addendum report has been prepared to present the results of a valuation of the State of Iowa Judicial Retirement Fund as of July 1, 2013, based on the prescribed methodology under current statutes and regulations issued there under.

The unfunded actuarial accrued liability has been amortized as a level percent of payroll over 30 years. The payroll growth assumption used was 4%.

A summary of principal valuation results from the current and the prior valuation follows.

_	Actuarial Valuation as of						
	July 1, 2013	July 1, 2012					
<b>Summary of Costs</b>							
Normal cost at July 1	\$ 6,048,942	\$ 5,474,127					
UAAL amortization	2,656,857	2,738,960					
Total	8,705,799	8,213,087					
Interest to Year End	652,935	615,982					
Total Actuarially Required Contribution at Year End	9,358,734	8,829,069					
Less Employee contributions with interest	2,741,388	2,497,258					
State Required Contribution	6,617,347	6,331,811					
Expected Payroll FYE	\$ 28,278,385	\$ 25,760,100					
State Actuarially Required Contribution Rate	23.40%	24.58%					
<b>Funded Status</b>							
Actuarial accrued liability	\$178,725,295	\$170,232,283					
Actuarial value of assets	127,352,986	117,272,451					
Unfunded actuarial accrued liability	\$ 51,372,309	\$ 52,959,832					
Funded ratio	71.26%	68.89%					
Asset Values							
Market Value of Assets	\$128,928,834	\$111,224,878					
Actuarial Value of Assets	\$127,352,986	\$117,272,451					